



# McMASTER-CARR®

600 N County Line Rd  
Elmhurst IL 60126-2081  
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hi.sales@mcmaster.com

Peter Morin  
5003 Beacon Ridge Rd  
Lowell IN 46356

## Packing List

Page 1 of 1

07/17/2018

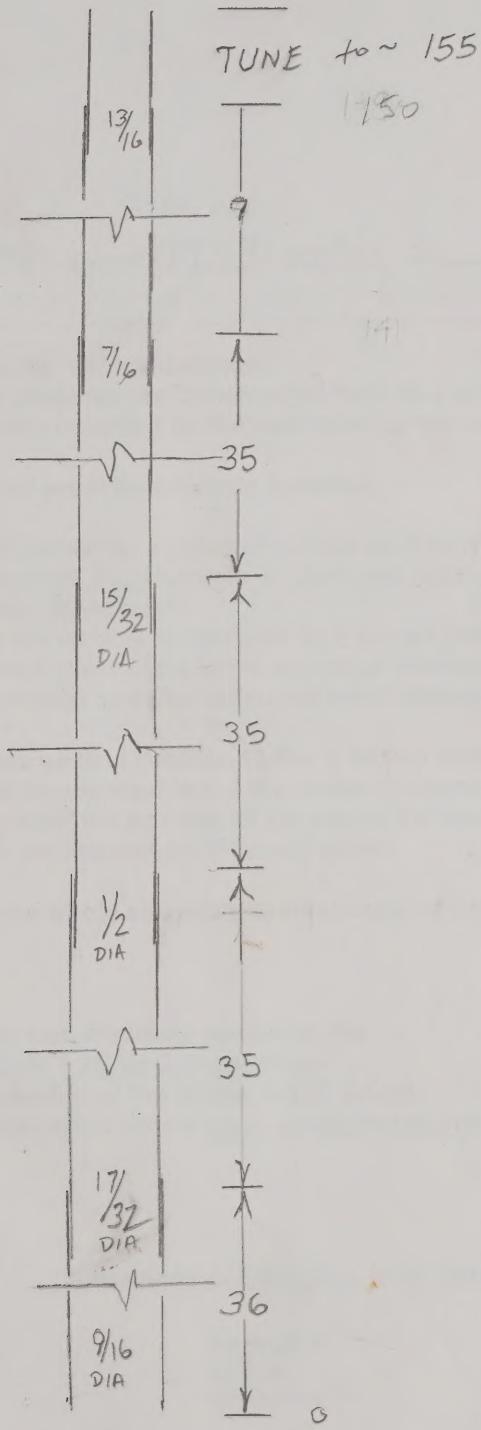
Purchase Order  
**0717PMORIN**

Order Placed By  
**Peter Morin**

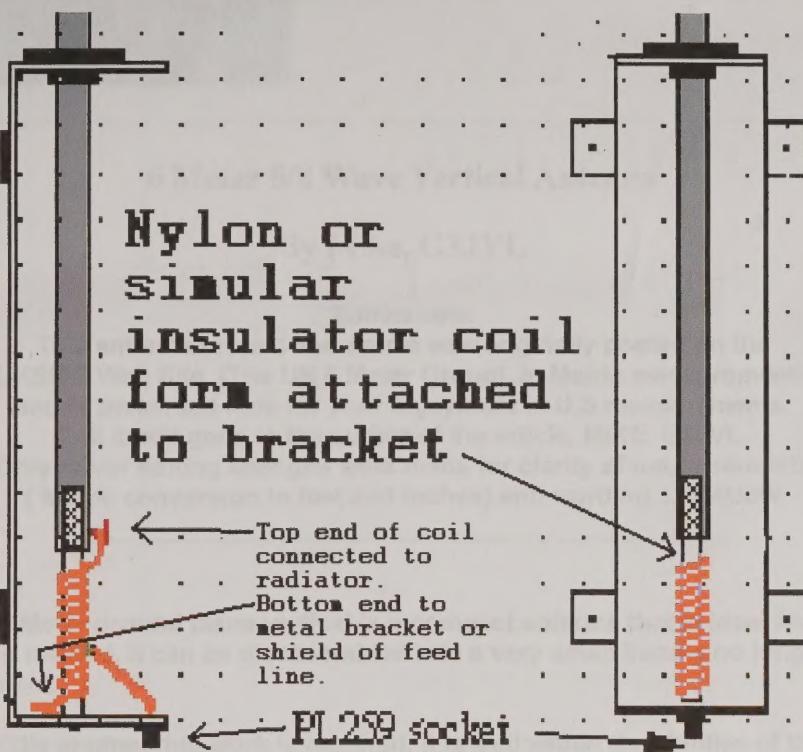
McMaster-Carr Number  
**6415875-01**

Line	Product	Ordered	Shipped
8859K335	Ultra-Formable 260 Brass, Round Tube, 3 Feet Long, 0.014" Wall Thickness, 9/16" OD, Packs of 1	1 Pack	1
8859K334	Ultra-Formable 260 Brass, Round Tube, 3 Feet Long, 0.014" Wall Thickness, 17/32" OD, Packs of 1	1 Pack	1
8859K333	Ultra-Formable 260 Brass, Round Tube, 3 Feet Long, 0.014" Wall Thickness, 1/2" OD, Packs of 1	1 Pack	1
8859K332	Ultra-Formable 260 Brass, Round Tube, 3 Feet Long, 0.014" Wall Thickness, 15/32" OD, Packs of 1	1 Pack	1









#### The construction of the 6m vertical antenna:

The four ground plane elements are Constructed from 49.2 inch long, (3/8") diameter aluminum tube. These are mounted to the base plate by the use of eight stainless steel machine screws.

This arrangement allows easy disassembly if needed.

The vertical itself is supported by a piece of 14 inch by 2 inch aluminum plate about 1/8 to 3/16 inch thick bent into a 90 degree angle on each end forming a... |\_\_\_\_\_|... shape as viewed from the side and layed down.

The bottom section of the vertical is insulated by a turned piece of nylon or similar tubing. If you do not have access to a lathe, any other insulating arrangement should suffice so long as it is robust and can withstand wind loading on the mount.

The overall length of the vertical is about 13 feet 6 inches including the loading coil. The top section should be adjusted to set the center frequency. If the VSWR at resonance is not close to 1:1 then alter the position of the tap on the loading coil (remember, changing this will alter the resonance of the antenna!).

Once completed give the whole assembly several coats of varnish to keep out the weather.

#### Editors note:

This project and article was originally posted on the [UKSMG Web Site \(The UK 6 Meter Group\) page](#).

Full credit goes to the author of the article, MIKE, G3JVL.

You can see the original metric article [here](http://uksmg.org/content/vertical.htm). <http://uksmg.org/content/vertical.htm>

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How to  
choose  
an antenna  
for amateur  
radio

How to buy  
an antenna  
for amateur  
radio

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Amateur Radio Digital Communications, Grant 151

Open composition giving the writer scope to work out his

Editor's Note:

This project has three new additions based on the

REVIEW - now this is off the beaten path.

Any comments or suggestions to the author, [WHITE GATE](#)

will be greatly appreciated. Please write [publications@amsat.org](mailto:publications@amsat.org) or leave a message at <http://amsat.org>.

<https://archive.org/details/gmantenna00unse>

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## 6 Meter 5/8 Wave Vertical Antenna

By Mike, G3JVL

### Editors note:

This antenna project and article was originally posted on the UKSMG Web Site, (The UK 6 Meter Group), in Metric measurements and is presented here for your enjoyment in U.S measurements.

Full credit goes to the author of the article, MIKE, G3JVL. Only minor editing changes were made for clarity of measurements ( Metric conversion to feet and inches) and wording.....N4UJW

The G3JVL 6 Meter ground plane vertical is a compact antenna that is ideal for portable operations. If needed, it can be disassembled into a very small bundle no longer than the longest element.

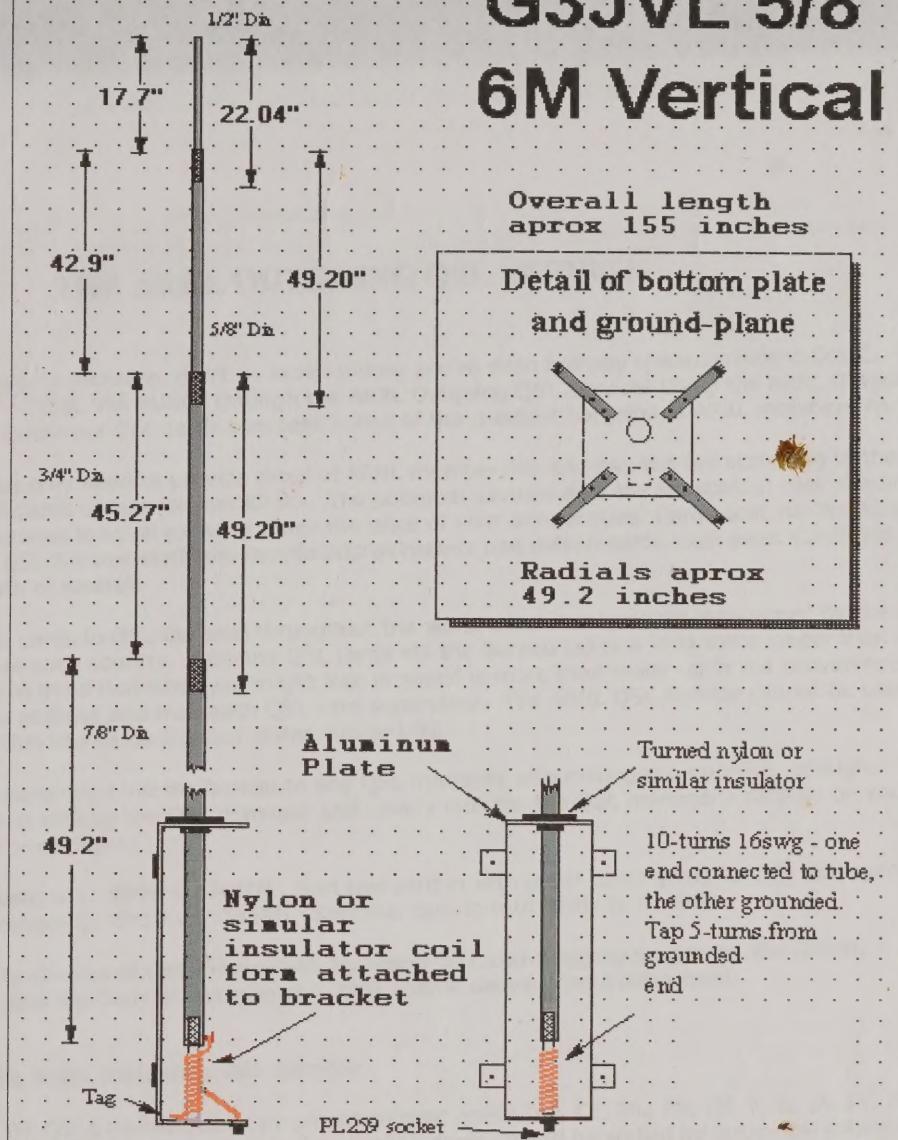
Although a little engineering work is required, it is well within the abilities of the home workshop and all you newly licensed amateurs or 6 Meter buffs!

The vertical itself is constructed out of four overlapping sections of aluminum tube whose sizes are given in the diagram below. The four tubes are meant to telescope, so wall thickness should be chosen to achieve this. In practice, 16swg might be OK but 18swg will easily fit. The lengths can be held in place by three stainless steel self-tapping screws or hose clamps.

The vertical is bottom-loaded with a coil wound on an insulated form (nylon or similar material - it is not too critical at 50MHz). - the form is about 5 inches long with the top 3/4 inch turned so it can be inserted into the bottom section of the vertical. The loading coil consists of ten turns of 16swg diameter coated or insulated copper wire with one end connected to the bottom section of the vertical with a machine screw and the other end connected to the ground plate. An adjustable tap at 5-turns is connected to the input PL-259 socket. Tap can be soldered or permanently attached in place after VSRW adjustment is final.



# G3JVL 5/8 6M Vertical



Base Details Below:





## THE ARRL OUTGOING QSL SERVICE

As postage costs continue to increase, don't go broke before you're even halfway towards making DXCC. There's a better and cheaper way -- "QSL VIA BURO" through the ARRL Outgoing QSL Service! Using the ARRL Outgoing QSL Service to conveniently send your QSL cards overseas is one of the greatest bargains of ARRL membership.

To use this service you only need to provide proof of ARRL membership and pay the fee according to the schedule below. You can send 10 cards or less for just \$2.00. The potential savings over the substantial cost of mailing individual QSL cards overseas is equal to many times the price of your annual dues. Cards sent via the Bureau are sorted by the Outgoing QSL Service staff who handle approximately one million cards each year. Cards are usually shipped within one month of receipt.

The Service ships QSL cards to QSL Bureaus throughout the world which are typically maintained by the national Amateur Radio Society of each country. Sending QSL cards via the Bureau takes a little while longer than mailing them directly, but keep in mind that what you might lose in speed is more than made up in the convenience and savings of not having to address and mail each QSL card separately. The ARRL QSL Service cannot be used to exchange QSL cards within the 48 contiguous states (US to US).

You may also send QSLs via the bureau to any QSL manager who manages a non-U.S. callsign. However, you must look up the QSL manager and clearly indicate the QSL manager's callsign on your outgoing card. For example:

Example 1: 8P8P via NN1N. Sort this card in with other cards going to U.S. managers.  
Example 2: 6Y1V via OH3RB. Sort this card in with cards to Finland.

There are many sources of QSL information, including QRZ.com, logging programs, the GoList, [www.qslinfo.de](http://www.qslinfo.de), and the Daily DX website at: <http://www.dailyydx.com/routes.html>.

### How To Use The ARRL Outgoing QSL Service

1. Presort your DX QSLs alphabetically by parent callsign prefix (AP, CE, DL, ES, EZ, F, G, JA, LY, PY, UN, YL, 5N, 9Y and so on). Canadian and Australian cards should be sorted by numerical callsign (VE1, VE2, VE3 & VK1, VK2, VK3 etc). Note: Some countries have a parent prefix and use additional prefixes, i.e. G (parent prefix) = M, 2E, 2I, 2M, 2W... When sorting countries that have multiple prefixes, keep that country's prefixes grouped with the parent prefix in your alphabetical stack. Addresses are not required.
2. Do not separate the country prefixes by use of paper clips, rubber bands, slips of paper or envelopes.
3. Please enclose proof of your current ARRL membership. This can be in the form of a photocopy or cut-out of the address area from your current copy of *QST*. You can also write the information from the label on a slip of paper and use that as proof of membership. A copy of your current membership card is also acceptable.
4. Members, including foreign, QSL Managers or managers for DXpeditions, should enclose payment as follows. For those who prefer to send an envelope with small numbers of cards:

- \$2 for 10 or fewer cards in one envelope,
- \$3 for 11-20 cards in one envelope, or

For packages with larger numbers of cards:

- 75 cents per ounce, for packages with 21 or more cards. For example, a package containing 1.5 pounds of cards -- 24 ounces, or about 225 cards -- will cost \$18. The minimum charge is \$3.00.

You should use an accurate scale to weigh them. Most post offices have scales that you may use.

5. Please pay by check (or money order) and write your callsign on the check. Send cash at your own risk. DO NOT send postage stamps or IRCs. Please make checks payable to: "The ARRL Outgoing QSL Service." If you would like to know that your cards were received at the ARRL QSL Bureau, enclose an SASE in with your cards and we will return that to you as receipt.
6. DXCC credits cannot be used towards the QSL Service fee.



7. Include only the cards, proof of membership, an SASE (if desired) and the appropriate fee in the package. Wrap the package securely and address it to the ARRL Outgoing QSL Service, 225 Main Street, Newington, CT 06111-1494.
8. Family members may also use the service by enclosing their QSLs with those of the primary member. Include the appropriate fee and indicate "family membership" on the primary member's proof of membership.
9. Blind members who do not receive QST need only include the appropriate fee along with a note indicating the cards are from a blind member.
10. ARRL affiliated-club stations *may use the service when submitting club QSLs by indicating the club name*. Club secretaries should check club affiliation on the ARRL web site to ensure that their affiliation is current. In addition to sending club station QSLs through this service, affiliated clubs may also "pool" their members' individual QSL cards for an even greater savings. Each club member using this service must also be an ARRL member. Cards should be sorted "en masse" by prefix and a proof of membership should be enclosed for each ARRL member.

### **Recommended QSL Card Dimensions**

The efficient operation of the worldwide system of QSL Bureaus requires that cards be easy to handle and sort. Cards of unusual dimensions, either much larger or much smaller than normal or printed on thin paper (i.e. copier paper), slow the work of the Bureaus, most of which is done by unpaid volunteers.

A review of the cards received by the ARRL Outgoing QSL Service indicates that most fall in the following range:

Height = 2-3/4 to 4-1/4 in. (70 to 110 mm),  
Width = 4-3/4 to 6-1/4 in. (120 to 160 mm).

IARU Region 2, that includes the United States, has suggested the following dimensions as optimum:

Height 3-1/2 in. (90 mm), Width 5-1/2 in. (140 mm).

Cards in this range can be easily sorted, stacked and packaged. Cards outside this range create problems. In particular, the larger cards often cannot be handled without folding or otherwise damaging them. In the interest of efficient operation of the worldwide QSL Bureau system, it is recommended that cards entering the system be limited to the range of dimensions given.

### **Countries Not Served By the Outgoing QSL Service**

Approximately 225 DXCC entities are served by the ARRL Outgoing QSL Service, as detailed in the ARRL [DXCC List](#). This includes nearly every active country. As noted previously, cards are forwarded from the ARRL Outgoing Service to a counterpart bureau in each of these countries. In some cases, there is no Incoming Bureau in a particular country and cards, therefore, cannot be forwarded. However, QSL cards can be forwarded to a QSL manager, e.g., ZB2FX via G3RFX. Most operations from places without a QSL bureau have a QSL manager.

The ARRL Outgoing Service cannot forward cards to the following DXCC entities:

A3	Tonga	P5	North Korea	ZD9	Tristan da Cunha
A5	Bhutan	PZ	Suriname	3B	Agalega, Mauritius, Rodrigues
A6	United Arab Emirates	S0	Western Sahara	3C0	Pagalu Island
C2	Nauru	S7	Seychelles	3C	Equatorial Guinea
C5	Gambia	S9	Sao Tome & Principe	3DA	Swaziland
C6	Bahamas	ST	Sudan	3W	Vietnam
CN	Morocco	SU	Egypt	3X	Guinea
D2	Angola	T2	Tuvalu	4J	Azerbaijan
D4	Cape Verde	T3	Kiribati	4W	Timor- Leste
E3	Eritrea	T5	Somalia	5A	Libya
E4	Palestine	T8	Palau	5R	Madagascar
E5	North & South Cook Is.	TJ	Cameroon	5T	Mauritania
HH	Haiti	TL	Central African Rep	5U	Niger
HV	Vatican	TN	Congo	5V	Togo
J5	Guinea-Bissau	TT	Chad	7O	Yemen
J8	St. Vincent	TY	Benin	7P	Lesotho
KG4	Guantanamo Bay	V3	Belize	7Q	Malawi
KH0	Mariana Is.	V4	St. Kitts & Nevis	8Q	Maldives
KH1	Baker & Howland Is.	V6	Micronesia	9L	Sierra Leone
KH4	Midway Island	VP2E	Anguilla	9N	Nepal
KH5	Palmyra & Jarvis Is.	VP2M	Montserrat	9U	Burundi



KH7K	Kure Island	XU	Cambodia	9X	Rwanda
KH9	Wake Island	XW	Laos		
KP1	Navassa Island	XZ	Myanmar		
KP5	Desecheo Island	YA	Afghanistan		
P2	Papua New Guinea	Z2	Zimbabwe		

**Countries that currently deliver QSL cards only to members of that country's national radio society include the following:**

Belarus	Denmark	France	Germany	Hungary	Italy	Japan	Monaco	Norway	Poland
Portugal	Russia	South Africa	Sweden	Zambia					

### Additional Information

We do not hold cards for countries with no Incoming Bureau. Only cards indicating a QSL Manager for a station in these particular countries will be forwarded. Undeliverable cards will normally not be returned.

When sending cards to *foreign QSL managers*, you must sort these cards using the manager's callsign, rather than the station's callsign. SWL cards can be forwarded through the QSL Service.

The Outgoing QSL Service **CANNOT** forward stamps, cards inside envelopes, IRCs or "green stamps" (cash) to the foreign QSL bureaus.

Please direct any questions or comments to the ARRL Outgoing QSL Service, 225 Main Street, Newington CT, 06111-1494. The Outgoing QSL Service can be reached at 860-594-0274. Inquiries via email may be sent to [buro@arrl.org](mailto:buro@arrl.org)

Information regarding the Incoming QSL bureaus can be located at: <http://www.arrl.org/incoming-qsl-service>

April 2011



FREQUENCY	LOCATION
147.000 + pl 131.8	Main Site - Merrillville, Indiana
147.240 + pl 131.8	St. John, Indiana
442.075 + pl 131.8	Merrillville, Indiana

MTD

KC9NTD  
K9ADCP  
St. John  
Merrillville



## LOCAL HAM OPERATORS

SkyWarn 146.685 Valparaiso 2000Z Tuesday

K9JKT	Joe	Schererville
KC9JAL	Todd	Hebron
KC9BPN	expired license ?	
KC9BPP	Scott	Crawfordsville, IN
N9IOA	Tobias	Georgia?
N9TAX	Joseph	Hebron
KA9TAP	Jack	Cedar Lake
N9QLS	Bill	Merrillville
KC9ZSV	Jeff	Morocco, Newton Co
KD9BVN	Stoney	Lake Village
KB9ORH	Kerry	Crown Point
KC9NTO	Adam	Hammond
KC9ZRF	James	Chicago Ridge
KB9NEE	Marvin	
KB9FGG	Dave	
KB9IPT	Lou	Cedar Lake
<b>K9JON</b>	Ron	Glenwood

**K9OOI Merv**



## LOCAL HAM OPERATORS

SkyWarn 146.685 Valparaiso 2000Z Tuesday

K9JKT	Joe	Schererville
KC9JAL	Todd	Hebron
KC9BPN	expired license ?	
KC9BPP	Scott	Crawfordsville, IN
N9IOA	Tobias	Georgia?
N9TAX	Joseph	Hebron
KA9TAP	Jack	Cedar Lake
N9QLS	Bill	Merrillville
KC9ZSV	Jeff	Morocco, Newton Co
KD9BVN	Stoney	Lake Village
KB9ORH	Kerry	Crown Point
KC9NTO	Adam	Hammond
KC9ZRF	James	Chicago Ridge
KB9NEE	Marvin	
KB9FGG	Dave	
KB9IPT	Lou	Cedar Lake
K9JON	Ron	Glenwood



# OVERCOMER MINISTRY RADIO LOG 2017

## Shortwave

	<b>FREQ (kHz)</b>	<b>LOCATION</b>	<b>DAY (UTC)</b>	<b>UTC Time</b>	<b>EASTERN Standard Time</b>
WRMI	5.015	Caribbean. S. America	Dailv	0000-2400	24 hrs/dav
	5.765	N. Amer, Eur, Mid East, N. Africa. South Asia	Daily	0000-1300	7pm-8am
	5.850	West/Midwest USA & East Asia	Daily	0100-0700 0900-1000 1100-1400	8pm-2am 4am-5am 6am-9am
	5.950	Caribbean & S. America	Daily	0100-1100 1200-1300 2000-2200	8pm-6am 7am-8am 2nm-5nm
	5.985	Central America	Daily	0100-0300 0500-0700 2100-2200	8pm-10pm 12am-2am 4pm-6pm
	6.915	western USA & Mexico	Dailv	0000-2400	24 hrs/dav
	7.570	North America / E Asia	Dailv	2300-1400	6pm-9am
	7.730	Western N America & South Pacific	Daily	2300-0000 0100-0700 0800-1400	6pm-7pm 8pm-2am 2am-9am
	7.780	n. Amer, Eur, Mid East, N. Africa. South Asia	Daily	2200-1200	5pm-7am
	9.455	Caribbean & S.America	Dailv	1300-2000	8am-3pm
	9.955	Latin America	Daily	0600-1100 1500-2200	1AM-6am 10am-5pm
	11.530	South America	Daily	0200-1200 2200-0000	9pm-7am 5nm-7nm
	11.565	West N. Amer & E Asia	Dailv	1400-2300	9am-6pm
	11.580	East N. America, Eur, Mid East, N. Africa. South Asia	Daily	0300-1300 1500-2000 2100-2200	10pm-8am 10am-3pm 4pm-6pm
	11.825	North America (East)	Dailv	1300-0000	8am-7pm
	13.695	Western USA & E. Asia	Daily	1400-2100 2200-2300	9am-4pm 5nm-6nm
	15.440	West N. Amer / S. Pacific	Dailv	1400-2300	9am-6pm
	15.770	E. N. Amer, Eur, Mid East, N. Africa. S. Asia	Daily	1200-2100	7am-4pm
	17.790	South America	Dailv	1200-2200	7am-5pm
	21.675	Africa	Dailv	1000-1400	5am-9am
WWCR	3.215	USA	Mon-Sat	0300-0800	10pm-3am
	4.840	USA	Saturday	0500-0600 0730-0830	midnight-1am 2:30am-3:30am
	4.840	USA	Sunday	0400-0500 0900-1000	11pm-midnight 4am-5am
	5.890	USA	Daily Mon-Fri Mon-Fri	0400-1000 1100-1200 0200-0400	4am-5am 6am-7am 10pm-11pm
	7.520	USA	Sat-Sun	2300-0100	6pm-8pm
	9.350	USA	Saturday	1900-2200	2pm-4pm

	9.980	USA	Daily Mon-Fri Sat.Sun	1400-2000 1200-1400 2000-2200	9am-3pm 7am-9am 2pm-6pm
	12.160	USA	Saturday Sunday	1700-1900 1600-1800	noon-2pm 11am-1pm
WBCQ	7.490	USA	Sunday Mon-Fri Mo. Tu. Thu.Fri Saturday	0000-0300 2200-2300 0100-0300 0100-0400	7pm-10pm 5pm-6pm 8pm-10pm 8pm-11pm
	9.330	USA	Daily	24 hr mostly	24 hr mostly
	5.130	USA	Daily	24 hr mostly	24 hr mostly
World Harvest	5.920	Eastern North America	Sunday	0000-0100	7pm-8pm
	7.315	Europe	Daily	0600-0700	1am-2am
World Harvest	7.355	Europe	Daily	0700-0800	2am-3am
	9.505	Europe	Daily	2200-0000	5pm-7pm
	9.840	Eastern North America	Sunday Sunday Saturday	1200-1300 1900-2000 1400-1600	7am-8am 2pm-3pm 9am-11am
	15.710	Western North America	Daily	1800-2200	1pm-5pm
	21.610	Africa	Sat-Sun Saturday Mon-Fri	1300-1400 1400-1500 1800-2000	8am-9am 9am-10am 1pm-2pm
Bulgaria	9.465	Russia /M East / E Africa	Daily	1700-0200	Noon-9pm
	9.700	Europe / USA	Daily	1800-2000	1pm-3pm
	11.700	Europe / Mid East	Daily	1300-1700	8am-noon
	13.600	Mid East / Japan	Daily	0800-1300	3am-8am
	15.325	W Africa / Spain / Brazil	Daily	1400-2000	9am-3pm

### AM Stations

STATION	FREQ	LOCATION	TIME	DAY (# of hrs)	TIME ZONE
WCKY	1530 AM	Cincinnati, OH	1am-3am 2am-3:30am 3am-5am	Daily (2hr) Sat (1.5hr) Sun (1hr)	Eastern
WSNR	620 AM	New York, NY	12am-5AM 11-00_midiight	Sunday (5HR) Sun_Thur (1hr)	Eastern
WWVA	1170 AM	Wheeling, W. VA	12:05am-1am 6am-7am	Tue-Sat (1hr) Sat (1hr)	Eastern
WTMR	800 AM	Camden. NJ	1pm-2pm	Mon-Fri (1hr)	Eastern
KAAY	1090 AM	Little Rock, AR	9pm-10pm 1am-2am 11pm-midiight	Mon-Fri (1hr) Mon-Fri (1hr) Sat_Sun (1hr)	Central
WNAH	1360 AM	Nashville, TN	10pm-6am 6pm-6am 1pm-2pm	Sun-Fri (8hr) Sat Night (12 hr) Sunday (1hr)	Central
WKGM	940 AM	Norfolk. VA	1am-5am	Daily (4hr)	Eastern
WACE	730 AM	Springfield, MA	10am-11am 1:30pm-3pm 4pm-5pm	Mon-Fri (1hr) Mon-Fri (1.5hr) Sat (1hr)	Eastern

Callsign / File Num	Status	Station Class	Licensee Name	Xmtr City	Freq	Ch			
KNFX766	Active	Base	AMTRAK	CHICAGO	161.190	I			ICG+IHB+CHCEN+SOO+AMTRAK 72
KRR917	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.190	I			
KRR918	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.190	I			
WNIZ346	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.190	I			
WNJY220	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	STICKNEY	161.190	I			
WNLF924	Active	Base	CHICAGO CENTRAL & PACIFIC RAILROAD CO	CICERO	161.190	I			
WPMZ858	Active	Base	Soo Systems Radio Communications Corporation	FRANKLIN PARK	161.190	I			
WNBG753	Active	Mobile	METRA	CHICAGO	161.205	73			
WNJY220	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	STICKNEY	161.205	I			
WNKX352	Active	Mobile	Norfolk Southern Railway Company	CHICAGO	161.205	I			
WPKF523	Active	Base	The Burlington Northern and Santa Fe Railway Co	HODGKINS	161.205	I			BN+ICG+SOO+NS+METRA 73
WPKF523	Active	Mobile	The Burlington Northern and Santa Fe Railway Co	HODGKINS	161.205	I			
WPMZ858	Active	Base	Soo Systems Radio Communications Corporation	FRANKLIN PARK	161.205	I			
KFW518	Active	Mobile	METRA	CHICAGO	161.220	74			
KFW519	Active	Mobile	METRA	CHICAGO	161.220	I			
WPMZ858	Active	Base	Soo Systems Radio Communications Corporation	FRANKLIN PARK	161.235	75			
KNFX259	Active	Base	Norfolk Southern Railway Company	CHICAGO	161.250	76			
KSA223	Active	Base	Norfolk Southern Railway Company	CHICAGO	161.250	I			
WNKX352	Active	Base	Norfolk Southern Railway Company	CHICAGO	161.250	I			
KRC498	Active	Base	AMTRAK	CHICAGO	161.265	77			
KGV765 / 0001792630	Pending	Mobile	BELT RADIO COMMUNICATIONS INC	BEDFORD PARK	161.280	78			ICG+IHB 78
KRR917	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.280	I			
KRR918	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.280	I			
KGV765 / 0001792630	Pending	Mobile	BELT RADIO COMMUNICATIONS INC	BEDFORD PARK	161.295	79			
KLE810	Active	Base	ILLINOIS CENTRAL GULF RAILROAD COMPANY	CHICAGO	161.295	I			
KRR917	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.295	I			
KRR918	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.295	I			
WNJY220	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	STICKNEY	161.295	I			
WPGP395	Active	Base	PENNSYLVANIA LINES LLC	CHICAGO	161.295	I			
WQAG471	Active	Base	Wisconsin Central System	Desplaines	161.295	I			
WQAG471	Active	Mobile	Wisconsin Central System	Desplaines	161.295	I			ICG+IHB+PENN+WIC+PENN 79
KNFX766	Active	Base	AMTRAK	CHICAGO	161.325	81			
WPTX382	Active	Base	AMTRAK	CHICAGO	161.325	I			
KSA950	Active	Base	METRA	CHICAGO	161.340	82			
KSA950	Active	Mobile	METRA	CHICAGO	161.340	I			
KGV765 / 0001792630	Pending	Mobile	BELT RADIO COMMUNICATIONS INC	BEDFORD PARK	161.370	84			
KNFX766	Active	Base	AMTRAK	CHICAGO	161.370	I			
KNIC661	Active	Base	CSX TRANSPORTATION INC	CHICAGO	161.370	I			
KNIC661 / 0001721605	Pending	Base	CSX TRANSPORTATION INC	CHICAGO	161.370	I			
KNJM324	Active	Base	CSX TRANSPORTATION INC	CHICAGO	161.370	I			
WPYE856	Active	Mobile	Soo System Radio Communications Corporation	Bensenville	161.370	I			CSX+IHB+SOO+AMTRAK 84
KVM489	Active	Mobile	The Burlington Northern and Santa Fe Railway Co	CHICAGO	161.385	85			
KVK389	Active	Base	Norfolk Southern Railway Company	CHICAGO	161.415	87			
KVK389	Active	Mobile	Norfolk Southern Railway Company	CHICAGO	161.415	I			

## RAILROAD TRANSMITTERS 15 MILE RADIUS

41 53' 21" N 087 52' 01" W

Callsign / File Num	Status	Station Class	Licensee Name	Xmtr City	Freq	Ch				
WPAS786	Active	Base	Soo Systems Radio Communications Corporation	SCHILLER PARK	161.430	88				SOO 88
WPMZ858	Active	Base	Soo Systems Radio Communications Corporation	FRANKLIN PARK	161.430	I				
WPPA494	Active	Base	Soo Systems Radio Communications Corporation	CHICAGO	161.430	I				
WPYE856	Active	Base	Soo System Radio Communications Corporation	Bensenville	161.430	I				
WPYE856	Active	Mobile	Soo System Radio Communications Corporation	Bensenville	161.430	I				
KDK344	Active	Base	BELT RADIO COMMUNICATIONS INC	CHICAGO	161.445	89				IHB+NS 89
KGV765 / 0001792630	Pending	Base	BELT RADIO COMMUNICATIONS INC	BEDFORD PARK	161.445	I				
KGV765 / 0001792630	Pending	Base	BELT RADIO COMMUNICATIONS INC	CHICAGO	161.445	I				
KGV765 / 0001792630	Pending	Mobile	BELT RADIO COMMUNICATIONS INC	BEDFORD PARK	161.445	I				
WNUY884	Active	Mobile	Norfolk Southern Railway Company	CHICAGO	161.445	I				
/ 0001704427	Pending	Base	ILLINOIS CENTRAL RAILROAD CO	CHICAGO	161.460	90				ICG 90
/ 0001704427	Pending	Mobile	ILLINOIS CENTRAL RAILROAD CO	CHICAGO	161.460	I				
KLE810	Active	Base	ILLINOIS CENTRAL GULF RAILROAD COMPANY	CHICAGO	161.460	I				
KRR917	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.460	I				
KRR918	Active	Base	ILLINOIS CENTRAL GULF RAILROAD CO	CHICAGO	161.460	I				
KSA357	Active	Base	UNION PACIFIC RAILROAD COMPANY	NORTHLAKE	161.475	91				UP 91
KSA357	Active	Mobile	UNION PACIFIC RAILROAD COMPANY	NORTHLAKE	161.475	I				
WNDL300	Active	Base	UNION PACIFIC RAILROAD COMPANY	NORTHLAKE	161.475	I				
KLE810	Active	Base	ILLINOIS CENTRAL GULF RAILROAD COMPANY	CHICAGO	161.505	93				
KBY513	Active	Base	UNION PACIFIC RAILROAD COMPANY	DES PLAINES	161.520	94				
KGV765 / 0001792630	Pending	Mobile	BELT RADIO COMMUNICATIONS INC	BEDFORD PARK	161.520	I				SOO+IHB+UP+METRA 94
WNMM986	Active	Base	UNION PACIFIC RAILROAD COMPANY	CHICAGO	161.520	I				
WNVF806	Active	Base	METRA	CHICAGO	161.520	I				
WPMZ858	Active	Base	Soo Systems Radio Communications Corporation	FRANKLIN PARK	161.520	I				
WPPA494	Active	Base	Soo Systems Radio Communications Corporation	CHICAGO	161.520	I				
WPYE856	Active	Base	Soo System Radio Communications Corporation	Bensenville	161.520	I				
WPYE856	Active	Mobile	Soo System Radio Communications Corporation	Bensenville	161.520	I				

+BN+IHB 36  
 +IHB+NS+PENN 22  
 +BN+ICG+SOO+NS 73  
 METRA 38,61,74,82  
 +BN 33  
 +SOO+IHB+UP 44,94  
 AMTRAK 9,13,42,77,81  
 +NS 17  
 +CSX+SOO 19  
 +CSX+IHB+UP 8  
 +CSX+IHB+SOO 84  
 +PENN+IHB+BN+NS 46  
 +ICG+IHB+CCEN+SOO 72  
 +BN+PENN 66  
 +SOO+NS 25  
 UP 7,31,40,47,62,71,91  
 +IHB 23  
 +IHB+PENN 52  
 +IHB+SOO+METRA 94